

# Pay-per-view in interlibrary loan: a case study

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**Question:** Can purchasing articles from publishers be a cost-effective method of interlibrary loan (ILL) for libraries owing significant copyright royalties?

**Setting:** The University of Nebraska Medical Center's McGoogan Library of Medicine provides the case study.

**Method:** Completed ILL requests that required copyright payment were identified for the first quarter of 2009. The cost of purchasing these articles from publishers was obtained from the publishers' websites and compared to the full ILL cost. A pilot

period of purchasing articles from the publisher was then conducted.

**Results:** The first-quarter sample data showed that approximately \$500.00 could have been saved if the articles were purchased from the publisher. The pilot period and continued purchasing practice have resulted in significant savings for the library.

**Conclusion:** Purchasing articles directly from the publisher is a cost-effective method for libraries burdened with high copyright royalty payments.

## INTRODUCTION

Interlibrary loan (ILL) is a resource-sharing practice in which original or copied materials are provided by one library to another at the request of a library patron. Technologies and techniques for requesting and obtaining ILL materials have obviously changed since the American Library Association codified ILL practices in 1919 [1]. Today, most requests are submitted through online resource-sharing systems. Many health sciences libraries utilize the National Library of Medicine's (NLM's) DOCLINE resource-sharing platform. DOCLINE membership is free, and most member libraries are affiliated with academic health sciences institutions or hospitals [2]. ILL requests are also placed on OCLC's subscription-based WorldCat Resource Sharing network [3].

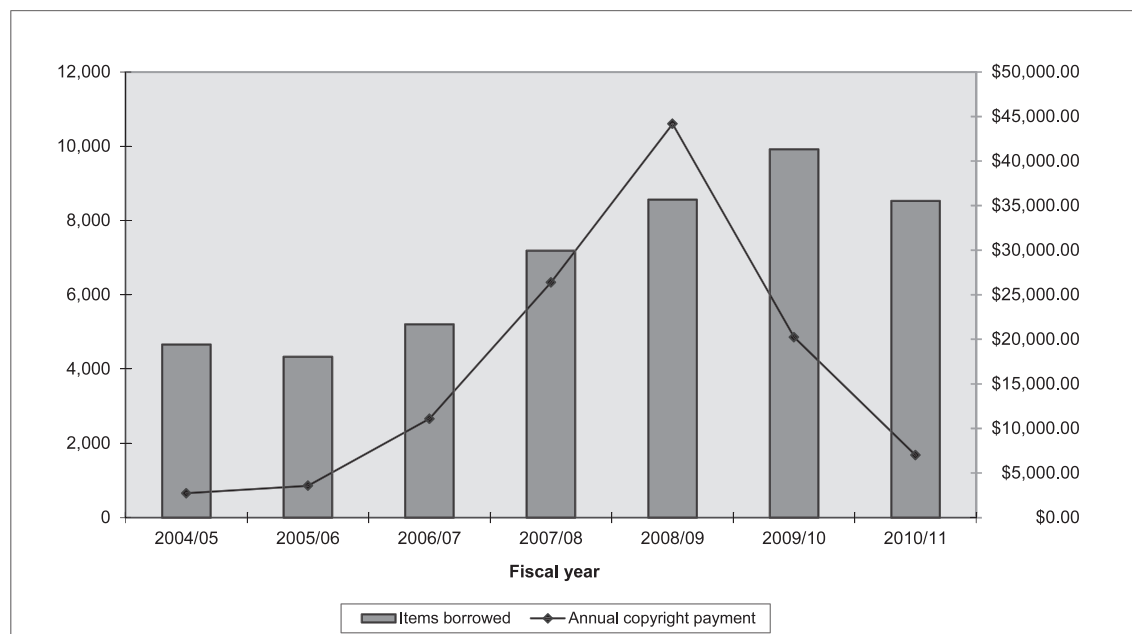
For the past several years, NLM has reported a steady decline in the number of requests submitted on DOCLINE [4]. These reports do not differentiate requests by academic versus hospital libraries and do not consider OCLC activity, which is likewise not readily available. The Association of Academic Health Sciences Libraries (AAHSL) annual statistics, however, do provide greater detail about the ILL activity of its 152 academic health sciences library members. Members self-report their annual ILL activity, which is a combination of DOCLINE, OCLC, and other resource-sharing service activity. Similar to the DOCLINE trend, AAHSL data have shown a consistent decrease in borrowing activity from 2005 to 2009. However, the 2010 data have revealed a notable increase of 15% [5].

The McGoogan Library of Medicine at the University of Nebraska Medical Center (UNMC) serves a faculty, staff, and student population of 7,300 full-time equivalents (FTEs). The library's ILL department consists of 3.0 FTEs: a managing librarian and 2 staff members dedicated to borrowing and lending, respectively. The circulation department provides support by scanning items in the library's print collection

for UNMC patrons. The ILL department experienced an unexpected and alarming increase in borrowing requests and, therefore, in incurred costs between 2006 and 2009 (Figure 1). A decrease in requests did occur during the 2010/11 fiscal year, which might be due to the increasing prevalence of open access journals found by ILL staff and forwarded to patrons as internally filled requests. Though a definitive correlation cannot be made by the McGoogan Library for its borrowing activity trends, the initial increase occurred during a time in which the 4, now 5, UNMC College of Nursing campuses introduced a required evidence-based practice course that relies heavily on the journal literature. Additionally, the ILL department made requesting items easier through the introduction of ILL request forms that transferred citation data from databases directly into an ILL request. A review of data from UNMC peer institutions indicated that 7 of these institutions' libraries experienced either consistent or decreased borrowing activity during this same period, while 2 had recently experienced dramatic increases [5, 6].

The McGoogan Library's increase in borrowing activity was coupled with an understandable increase in copyright royalty payments. Approximately 70% of the McGoogan Library's borrowing article requests are for materials published within the last 5 years and are, therefore, not covered by the fair use provisions of section 108 of the US Copyright Law, as interpreted by the Commission on New Technological Uses of Copyrighted Works (CONTU). The CONTU guidelines, which further clarify subsection 108(g)(2), state that fair use allows libraries to obtain up to 5 articles dated within the past 5 years from a single journal title through ILL on a yearly basis [7, 8]. This guideline is often referred to as the "rule of five." The sixth and subsequently requested articles from a particular title require permission from the copyright holder. Many libraries, including the McGoogan Library, receive that permission by paying copyright royalties to the publisher via the Copyright Clearance

**Figure 1**  
Interlibrary loan borrowed items versus annual copyright royalty payments



Center (CCC), a third-party company that facilitates payments between libraries and publishers [9]. The CCC charges a minimal processing fee for each request, and the cost per article varies by publisher and title. For the 2008/09 fiscal year, the library paid \$44,168.22 ( $n=1,220$ ) in copyright royalties for interlibrary loan. The average amount paid in copyright fees was \$36.20 per article.

The McGooan Library absorbs the cost for the majority of these copyright royalty fees. Patrons are only asked to reimburse the library for the copyright fee if they have personally requested more than 5 articles dated within the last 5 years from the same journal or if they have requested more than 1 article from the same issue. The charge to affiliated patrons is capped at \$31, with any remaining amount subsidized by the library. However, unaffiliated patrons must pay the full copyright amount once the library has exceeded its 5 for the year. Affiliated patrons rarely reach their personal limit of 5, and most who do will cancel the request instead of paying the extra fee. From 2008 to 2011, the library absorbed between 90% and 95% of copyright royalty charges. The ILL department does not have a line item in the library's budget for copyright royalties or borrowing fees, instead relying primarily on cost-recovery payments from patrons, revenue from lending activity, and some annual targeted funds for student requests.

Faced with mounting costs, the ILL department pursued cost-saving opportunities, such as reciprocal agreements with other libraries. This effort eliminated the lending library fee, typically \$11.00 per transaction, but not the copyright royalty. The literature contains little evidence on the efficacy of copyright cost-saving

ventures. One article outlining the future of ILL provided a small amount of evidence that purchasing an article directly from a publisher could often be more cost effective than the combined ILL and copyright royalty fees [10]. The literature does contain several articles comparing the purchase versus borrowing of books or purchase-on-demand [11–13]; however, the results of these studies are not really applicable, as books can be used by multiple patrons and articles are purchased only for an individual.

Article-level acquisition, or pay-per-view (PPV), has been discussed in the literature as an alternative method to licensing online journals. In response to budget cuts, increased costs of journal subscriptions, and increased customer demand for online journal access, some libraries have experimented with PPV, cancelling all of a publisher's online journal titles in favor of article-level acquisitions from the publisher or use of a document delivery service [14]. These institutions have used a variety of transaction methods including both library mediated, in which library personnel access and retrieve articles for a patron, and unmediated, in which patrons have direct access to a publisher's full online catalog of publications or a document delivery supplier without any library intervention [15–18]. To meet patron time constraints, some libraries offer the choice between a lower-cost ILL and a cost recovery-priced article purchased directly from the publisher [19]. While libraries employing PPV in lieu of subscriptions have reported financial savings and high levels of customer satisfaction, they have also expressed concern with respect to the long-term ramifications of this practice and patron underutilization of the PPV service.

Moreover, these experiments were largely undertaken to manage collection development costs rather than ILL. The McGoogan Library's ILL department staff were interested in using PPV to manage ILL costs but felt they needed more solid proof that PPV would lead to savings.

## METHODS

To test the hypothesis that PPV could lead to savings, an analysis was conducted using ILL data from the first quarter of the 2009/10 fiscal year. The number of requests requiring copyright royalty payment ( $n=37$ ) was small and manageable. Most of the needed information had already been entered into records in the ILLiad ILL-management software program. When copyright fees are required, ILLiad permits staff to attach information about the fee to a request to facilitate later payment and statistical reporting. Charges from the lending library are not readily available and are therefore routinely entered into each transaction record by library staff. However, a recent update to the ILLiad software captures OCLC fee management charges [20]. This expense information is regularly used to analyze demographic spending trends and collection development needs. For the pilot, the copyright and lending library cost data, along with citation information, were extracted from ILLiad and placed into a spreadsheet to calculate the cost for each request. The citation information was used to locate the articles on the respective publishers' websites. The publisher's PPV price was then entered into the spreadsheet for each request. The total sum of each request was then compared to the publisher's direct cost.

The comparison of total article cost to publisher cost revealed that the library could have saved almost \$500.00 by purchasing these 37 articles directly from the publisher. With this evidence of potential cost savings, authorization to test the hypothesis further was obtained from library administration. This test required workflow modification and planning, as well as establishment of a decision tree. The ILL staff developed a workflow and methodology for these direct purchases using the ILLiad management software, a sophisticated database that interfaces with the DOCLINE and OCLC request systems and stores ILL transaction data. Because of the sophistication of these systems and the use of dual-monitor computer workstations in the ILL department, the workflow was fairly simple to implement. For those libraries without the benefit of ILLiad or a comparable integrated system, this purchasing practice is still possible, though the workflow and record keeping could be cumbersome.

Once a patron submits an article request, it automatically appears in ILLiad's Awaiting Copyright Processing queue. The ILL staff can immediately determine from the copyright queue interface if a request requires copyright royalty payment. These new requests are displayed next to a list of journal titles that ILLiad has calculated to have met or

exceeded the "rule of five," a live connection to the CCC, and the royalty cost. If the requested title is dated within the last 5 years and requires copyright payment, a search is conducted to locate the article on the publisher's website. If the article can be purchased and costs approximately \$5.00 less than the sum of the estimated \$11.00 cost of an ILL and the displayed copyright fee, the article is purchased from the publisher. After that determination has been made, ILL staff enter the following processing and reporting information into the appropriate fields in the request record: the would-be copyright fee, the actual publisher cost, and the name of the publisher. This information is used for batch purchasing when requests are from the same publisher and then for later analysis of cost-comparison and publisher trends. The article is then added to a publisher's online shopping cart, if available, and the request is routed to a special PPV queue for processing at the end of the workday. As there is generally a constant stream of incoming requests, purchasing articles on an individual basis would interrupt the otherwise seamless processing workflow and delay the entry of other requests into DOCLINE and OCLC. Additionally, because many of the article requests are from titles owned by the same publisher, doing a batch purchase in a single transaction saves processing time.

At the end of the workday, the PPV queue is opened and the request list is sorted by publisher name. Articles are then purchased from the publisher with the department credit card, and the portable document format (PDF) file is downloaded. A copyright notice cover page is inserted into the PDF, the PDF is saved to a web server, and the request is processed as being received, which then prompts an automatic email notification to the patron stating that the article is now available. By this time, emailed receipts from the respective publishers have been received and are then forwarded to the library's administrator for later reconciliation.

## RESULTS

The pilot period started in November 2009 and continued into the following quarter. It became readily apparent that savings were occurring, and this process soon became a permanent part of the ILL department's workflow. Of the total number of requests that required copyright payment, 52% of the total ( $n=1,348$ ) in 2009/10 and 76% of the total ( $n=1,053$ ) in 2010/11 were acquired through PPV. During the portion of the 2009/10 fiscal year in which this practice was in effect, an estimated savings of \$14,761.89 was realized. In the full fiscal year of 2010/11, an estimated \$18,631.24 was saved (Table 1). These savings represented an estimated 40% and 43% decrease, respectively, in yearly expenses. On a granular level, the estimated average cost of an article in 2010/11 would have been \$53.50 if PPV was not practiced. The average cost of an article obtained through PPV in this time period was \$30.27. However, it should be noted that the estimated cost does not

**Table 1**  
Pay-per-view purchase cost savings

Fiscal year	Requests	Estimated cost of interlibrary loan requests obtained through traditional methods				Actual cost of articles purchased from the publisher		Total savings (percentage)
		Copyright royalty fee†	Lending library fee‡	Total cost	Average cost per request	Publisher cost	Average cost per request	
2009/10*	696	\$29,115.94	\$7,656.00	\$36,771.94	\$52.83	\$22,010.05	\$31.62	\$14,761.89 (40%)
2010/11	802	\$34,086.50	\$8,822.00	\$42,908.50	\$53.50	\$24,277.26	\$30.27	\$18,631.24 (43%)

\* Pay-per-view purchasing started in November 2009.

† Based on Copyright Clearance Center royalty fee at the time of the request.

‡ Estimated at \$11.00 per request.

reflect the possibility of free, reciprocally obtained articles.

As this practice continued, some interesting details and opportunities appeared. Most publishers permit online purchasing of articles with a credit card on a transaction-by-transaction basis. Some publishers—such as ScienceDirect, Wiley, InformaHealthcare, and Karger—offer deposit accounts or purchases of token bundles, so that transaction-based credit card payments are not necessary [21–24]. This prepayment can result in a discounted per-article cost. ScienceDirect and Wiley per-article costs decrease as the size of the bundle increases. The McGoogan Library purchased article tokens from InformaHealthcare after a sales representative contacted the ILL department once the library's increased purchasing activity became apparent to the company. With these tokens now in the library's account, ILL staff simply log into the designated departmental account on the InformaHealthcare site and download the article PDF. The token bundle purchase has been advantageous. The per-article fee is now \$30.00, a 50% savings in prices for many of InformaHealthcare articles. The smallest token package was purchased, as it was unknown how often this publisher's articles would be requested by library patrons. Now, almost 2 years later, the department's tokens are nearly gone and a new set of tokens may be purchased, pending further analysis. Additionally, during renegotiations of the library's ScienceDirect license, it was discovered that the library was eligible for the publisher's lowest PPV rate of \$22.00 per an article, compared to the general cost of \$31.50. At this time, the library has not purchased other bundles but continues to record and monitor publisher transaction trends and costs for future bundle purchase consideration.

The story of PPV ILL does not end here. In March of 2011, the CCC introduced the Get It Now service, which allows academic libraries to purchase articles directly from the CCC. The cost varies among the 9 participating publishers but currently ranges from \$24.00 to \$37.00 per article [25]. Libraries are invoiced monthly for these transactions, and mediated and unmediated options are available. With mediated, ILL staff would request the article through this online service. Developed by the CCC and a team at the State University of New York–Geneseo, a free add-on for ILLiad makes the ordering process and importation

of request information virtually seamless [26]. In the unmediated option, a request link appears in the library's link resolver and offers a free or fee-based request option to the patron. The free option assumes no patron-incurred cost, though the library will be invoiced. A library may also institute a PayPal link to charge patrons for their transactions. Once an article is requested, the library or patron will receive the article via email within a few hours. The McGoogan Library's ILL department has recently used this service with success and savings. Future use depends on the cost compared to a publisher's website or discounted pricing.

## DISCUSSION

Based on nearly two years of data, the PPV model of obtaining articles directly from the publisher can result in significant savings. Libraries that pay significant copyright fees can lower their costs by adopting this model. Libraries that are not impacted by large copyright payments may also find an advantage to this practice. Typical of health sciences library patrons, McGoogan Library patrons require and expect high-quality copies of articles and quick turnaround of their requests. When it is cost effective to obtain an article through PPV, the patron benefits by receiving an article at the quality that the publisher intended and often in a timelier fashion than traditional ILL. ILLiad can calculate the average turnaround time for requests, from submission to receipt. The average turnaround time for the ILL department at the McGoogan Library in 2010/11 was 37.68 hours for requests filled by other libraries and 19.77 hours for requests filled by PPV purchases.

Though the cost of obtaining these articles through PPV has resulted in a monetary savings, the time spent processing these transactions has increased. The time spent looking for an article on the publisher's website is negligible, as it is the borrowing ILL staff's practice to search for open access copies for all requests. However, an additional thirty minutes per day is spent on processing PPV transactions during the approximately eight months of heaviest ILL traffic. Though processing PPV requests is similar to processing requests through DOCLINE or OCLC, electronic delivery of the article to the patron adds to the workload for the person in this role. The library's



administrative staff is responsible for reconciling the PPV credit card payments. Some paperwork is involved, but they report that this additional reconciliation is minimal and does not impact their workload. Additionally, the credit card used for these purchases has no annual fee, and the balance is paid on a monthly basis. As a side note, the amount of purchases on the department's monthly ledgers has significantly increased and was a bit alarming at the start of the PPV practice. However, paying for these requests on a monthly basis, as opposed to quarterly copyright reporting and payment, gives library administration a timely snapshot of current account balances.

The Get It Now service adds an interesting element to the PPV process. Because Get It Now ordering and receipt more closely mirrors traditional borrowing practices than PPV, future consideration may be given to using this service over direct publisher purchases, even when the cost is a few dollars higher. The current cost of a ScienceDirect article from Get It Now is \$24.00, compared to the library's discounted price of \$22.00. Nearly 40% of the articles purchased by the library through PPV in 2010/11 were from ScienceDirect. The Get It Now price would have cost the library an additional \$652.00. Because affected staff members do not find the PPV processes to be burdensome, discussions and future trend analysis will need to occur to determine if a change in purchase source should be made for this publisher's articles.

## CONCLUSION

The PPV practice in ILL is a cost-savings alternative for requests that require payment of copyright royalties. Though this method might not replace traditional ILL practices, the evidence of its cost-savings and its service-enhancing elements shows that PPV should be considered along with other tools used to obtain items that a library does not own. Through analysis of sample data and careful consideration of policies and staff workflow, enough evidence can be found to help make the decision for implementing this practice. New options and services offered by publishers and intermediaries, such as the CCC, hold the potential to further enhance this PPV practice that has already been proved to work at the McGoogan Library. The expectations of health sciences students and practitioners are high, as are institutional directives to cut and control spending. PPV is a solution that can help meet these expectations.

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